

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017307**Date Inspected:** 10-Oct-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspectors: ZPMC: Xu Tao; ABF: Mr. Shang Qing Quan, Mr. Wang Chao

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. Li Jun, stencil 051348 used shielded metal arc procedure WPS-B-P-2211-B-U2-1 to make tack welds between OBG segment 14W plates AP3017 and AP3018. This QA Inspector measured a welding current of approximately 170 amps and Mr. Li Jun appeared to be certified to make this weld. ZPMC CWI Mr. Wang Chao said he did not know the weld number and that he did have a drawing showing this weld number. This QA Inspector observed the base material appeared to have been preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Chen Chuanzong, stencil 044824 used flux cored welding procedure WPS-B-T-2132 to make stiffener plate welds AP3006-001-057 and -058. This QA Inspector measured a welding current of approximately 315 amps, 30.0 volts and Mr. Chen Chuanzong appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electrical heaters prior to

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

welding. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 15

This QA Inspector observed ZPMC welder Mr. Yin Xiao Kai, stencil 050232 used shielded metal arc welding procedure WPS-B-P-2211-B-U2-FCM to make OBG segment 14E tack weld SEG3019A-007 between OBG segment 14E plates AP3017 and AP3018. This QA Inspector measured a welding current of approximately 170 amps and Mr. Yin Xiao Kai appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hong Yong Li, stencil 044801 used flux cored welding procedure WPS-B-T-2131-B-U2-F to make OBG segment 14E root pass weld SEG3019A-007 between OBG segment 14E plates AP3017 and AP3018. This QA Inspector measured a welding current of approximately 320 amps, 30.0 volt and Mr. Hong Yong Li appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Huang Xinlan, stencil 044780 used submerged arc welding procedure specification WPS-B-T-2221-2 to make OBG segment 14E weld SEG3019A-007 between OBG segment 14E plates AP3017 and AP3018. This QA Inspector measured a welding current of approximately 640 amps, 30.0 volt and Ms. Huang Xinlan appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Ms. Wang Min, stencil 044771 used submerged arc welding procedure specification WPS-B-T-2221-2 to make OBG segment 14E weld SEG3019A-007 between OBG segment 14E plates AP3017 and AP3018. This QA Inspector observed Ms. Wang Min appeared to be certified to make this weld. This QA Inspector observed the base materials were preheated with electric heaters prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welders Mr. Yin Xiao Kai, stencil 050232, Mr. Wang Changfa, stencil 058102 and Mr. Wei Yingchong, stencil 048043 used shielded metal arc welding procedure WPS-B-P-2213-B-U2 to make OBG segment 14W temporary plate welds between the ends of various stiffener plates located on bottom plate BP3079A and other bottom plates. ABF CWI Mr. Shang Qing Quan informed this QA Inspector that the installation of temporary plate welds have been authorized by ZPMC document GGL-MQ-1929. This QA Inspector observed the welders appeared to be certified to make these welds. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

Yard in front of Bay 17

This QA Inspector observed ZPMC welder Mr. Hong Liang, stencil 200113 used shielded metal arc welding procedure specification WPS-B-P-2213-TC-U4B-FCM-1 to make OBG segment 12AE longitudinal diaphragm weld SEG3001T-019 near panel point PP111. This QA Inspector observed QC has recorded a welding current of

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

155 amps and Mr. Hong Liang appeared to be certified to make this weld. ZPMC QC Inspector Mr. Wang Wei Ming, who was monitored this welding agreed that the welding document needs to be corrected to correct the welder identification. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yang Yunfeng, stencil 215553 used shielded metal arc welding procedure specification WPS-B-P-2221-TC-U4B-FCM-1 to make OBG segment 12AE longitudinal diaphragm weld SEG3001V-045 near panel point PP111. This QA Inspector measured a welding current of approximately 220 amps and Mr. Yang Yunfeng appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Guanglin, stencil 044779 used shielded metal arc welding procedure specification WPS-B-P-2221-TC-U4B-FCM-1 to make OBG segment 12AE longitudinal diaphragm weld SEG3001X-045 near panel point PP111. This QA Inspector measured a welding current of approximately 210 amps and Mr. Zhao Guanglin appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
